

The Journal

of

The Indian Botanical Society

VOL. XXXIX—1960



EDITORIAL BOARD

T. S. Sadasivan, *Editor-in-Chief*

A. Abraham
Trivandrum

A. C. Joshi
Chandigarh

P. Maheshwari
Delhi

R. Misra
Banaras

B. P. Pal
Delhi

B. Samantarai
Cuttack

H. Santapau
Bombay

J. Venkateswarlu
Waltair

Published by the Indian Botanical Society

CONTENTS

Volume 39, 1960

No. 1

	PAGE
Contributions to the Lichen Flora of India and Nepal. I. The Genus <i>Physcia</i> (Ach.) Vain.....Awasthi, D. D.	1
Succession in Some <i>Shorea robusta</i> Forests of U.P.....	
.....Bhatnagar, Harish, P.	22
Cyperaceae from Mount Abu....Chavan, A. R. and Sabnis, S. D.	27
Some New Plant Records for Nagpur.....Mirashi, M. V.	30
Embryology of the Genus <i>Psidium</i>	
.....Narayanaswamy, S. and Roy, S. K.	35
Some Pteridophytic Spores from the Warkalli Lignite in South India with Special Reference to those of Schizaeaceae.....	
.....Ramanujam, C. G. K.	46
Studies in Indian Sauteriaceae. II. On the Morphology of <i>Athalamia pinguis</i> Falc.....Ram Udar	56
Observations on the Effect of the Monsoons in the Production of Phytoplankton.....Subrahmanyam, R.	78
Effect of Malonic Acid on Respiration.....	
.....Seshagiri, P. V. V. and Umamaheswara Rao, M.	90
The Distribution and Role of Sucrose in Plants..John Parkin	104
Root Apical Meristems in Monocots. I. Root Apex Organisation in Some Members of the Amaryllidaceae.....	
.....Deshpande, B. D.	126
Some Observations on the Gametophyte of <i>Hypodematium crenatum</i> (Forsk.) Kuhn with a Note on the Phyletic Affinities of the Genus.....Loyal, D. S.	133
A Contribution to the Embryology of <i>Begonia crenata</i>	
.....Swamy, B. G. L. and Parameswaran, N.	140
Meiosis in an Autotetraploid Race of <i>Asparagus racemosus</i> Willd.....Raju, C. S. K.	149
On <i>Gastroclonium iyengarii</i> —A New Species from India.....	
.....Srinivasan, K. S.	156

No. 2

Variation in Vessel Length within One Growth Ring of Certain Arborescent Dicotylodons.....	
Swamy, B. G. L., Parameswaran, N. and Govindarajalu, E.	163

	PAGE
The Embryology of <i>Galium asperifolium</i> Wall...Mohd. Farooq	171
Morphology and Embryology of <i>Cardiospermum halicacabum</i> Linn.Nair, N. C. and Joseph, T.	176
Occurrence of Spermogonia in <i>Phyllachora actinodaphnes</i>Tilak, S. T.	195
Fossil Dicotyledonous Wood of Lecythidaceae from the Deccan Intertrappean Beds of Mahurzari.....Shallom, L. J.	198
Studies in Burseraceae—I.....Narayana, L. L.	204
Root Ecology of <i>Dichanthium annulatum</i> Stapf.....Ramam, S. S.	210
Biosystematics of <i>Sisymbrium irio</i> Complex. IX. Genome Analysis.....Khoshoo, T. N.	217
A Contribution to Our Knowledge of the Vegetation and Flora of the Pachmarhi Plateau and the Adjacent Regions.....Rolla Seshagiri Rao and Narayanaswamy, V.	227
<i>Uncinula tectonae</i> Salmon on <i>Tectona grandis</i> L...Kamala Damle	243
Morphology of Two Indian Species of <i>Bolbitis</i> ...Nayar, B. K.	259
Accessory Chromosomes in <i>Sorghum nitidum</i> Pers.....Raman, V. S. and Krishnaswamy, D.	278
Genetic Studies in Barley. II. Inheritance of Fertility of the Lateral Florets and Certain other Characters.....Murthy, G. S. and Jain, K. B. L.	281
A Contribution to the Study of Amaranthaceae. <i>Achyranthes</i> <i>aspera</i> var. <i>prophyristachya</i> Hook.f.....Srivastava, G. P.	309
Effect of Carbon and Nitrogen Nutrition on Growth and Sporula- tion of <i>Colletotrichum capsici</i> (Syd.) Butler and Bisby.....Misra, A. P. and Mohmood, M.	314
Fungi from Hyderabad (India)—III.. Rao, P. N. and Salam, M. A.	322

No. 3

The Effect of the Himalayan Uplift on the Genetic Composition of the Flora of Asia.....Janaki Ammal, E. K.	327
Physiological Studies on Rice.....Parija, P.	335
Fungi Causing Plant Diseases at Jabalpur (Madhya Pradesh)—IIAgarwal, G. P. and Beliram, R.	351
Calcium Relations of Sal.....Jain, N. K.	357
Pollen Grains of Cultivated Plants. I. <i>Canna</i> Linn.....Nair, P. K. K.	373

	PAGE
Studies on the Interspecific Hybrid of <i>Pennisetum typhoides</i> × <i>P. purpureum</i> . V. The Cytology of an Allotriploid PlantRaman, V. S. and Krishnaswamy, D.	382
Phytosociological Studies in Types of Sal Forests of U.P.....Bhatnagar, H. P.	386
Studies in Burseraceae—II.....Narayana, L. L.	402
The Ontogeny of Extra-Floral Nectaries in the Genus <i>Gmelina</i>Chavan, A. R. and Deshmukh, Y. S.	410
Contributions to the Lichen Flora of India and Nepal. II...The Genus <i>Anaptychia</i> Korb.....Awasthi, D. D.	415
Developmental Pattern of the Primary Vascular System in the Stem of a <i>Cissus</i> sp.....Shah, J. J.	443
Studies in the Autecology of <i>Euphorbia hirta</i> Linn.....Ramakrishnan, P. S.	455
The Vegetation of Tirunelveli District..Shankaranarayanan, K. A.	474
Vegetative Propagation of the Tea Plant in Northern India. I. The Choice of Cutting.....Barua, D. N. and Barua, S. C.	480
A New Genus of Grasses from India— <i>Arthrochloa</i>Jacob W. Lorch	490
Reviews	496
American Institute of Biological Sciences—Translation Program	501
Proceedings of the Annual Meeting, 1960.....	i-xiv

No. 4

Sero-Diagnostic Methods for Phytopathological Studies.....Badami, R. S.	503
Cytological Studies in the Mosses of Eastern India. I. <i>Hydrogonium consanguineum</i> (Thw. et Mitt.) Hilp., <i>Semibarbula orientalis</i> (Web.) Wijk. et Marg., <i>Vesicularia montagnei</i> (Bel.) Fleisch., <i>Taxithelium nepalense</i> (Sohwaegr.) Broth. and <i>Philonotis laxissima</i> (C. M.) Bryol. Java.....Gangulee, H. C. and Chatterjee, N. K.	531
Studies in Indian Metzgerineae—IV. <i>Riccardia levieri</i> Schffn.Srivastava, K. P.	537
Preliminary Observations on the Flora of Dilapidated Walls and Buildings of Calcutta and Its Suburbs..Rash Behari Ghosh	548
The Diatom Flora of Some Ponds around Vasna Village near Ahmedabad.....Gandhi, H. P.	558

Studies in Indian Anthocerotaceae. III. The Morphology of <i>Anthoceros erectus</i> Kash. and Some Other Species.....	Bharadwaj, D. C.	568
Velamen in Terrestrial Monocots. II. Ontogeny and Mor- phology of Velamen in the Amaryllidaceae with a Discus- sion on the Exodermis in Amaryllidaceae and the Liliaceae	Deshpande, B. D.	593
Ecological Notes on the Vegetation of Kodaikanal in South India	Raj Kumar Gupta	601
Some Observations on the Cytology and Apogamy of Himalayan <i>Dryopteris paleacea</i> (Don) Hand. Mazz.....	Loyal, D. S.	608
Ecological Studies on the Fucales. I. <i>Pelvetia canaliculata</i> Dcenc. et Thur.....	Subrahmanyam, R.	614